

Breaking Down the Barriers: **A Team Approach to Learning Development**

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Introduction

In recent years, one area of effort by people working within the disability arena in tertiary education has been directed towards assisting students with learning differences. Much of their effort has been spent on working to break down barriers that separate students from assistance and encouragement. These barriers are both external and internal. They might include attitudes surrounding disability, teaching and assessment practices that do not take account of individual difference, and students' own perceptions of their learning potential.

This paper looks at a programme of learning assistance at the University of Waikato that is designed to address these barriers. The working practices and philosophy of this programme are based on principles of inclusion. The programme acknowledges and celebrates individual difference. It has been devised to provide a means for students to become actively involved in developing their learning strategies, to take ownership of them and to develop students' confidence in their ability to approach learning tasks. Furthermore the belief is that students who are confident and comfortable in their abilities, as well as in their individual differences, will assist in facilitating the development of flexible teaching and learning practices within the university.

The paper will background the programme, its aims, assumptions and framework, and outline the roles of the various parties involved. Some case studies illustrate the programme in action.

Background

The Disability Support Service (DSS) at the University of Waikato, Hamilton, New Zealand is situated within the Student Services Division. The team includes one full-time Disability Co-ordinator as manager, and two full-time Student Advisers whose role is to work one-on-one with students in setting up support provisions that minimise or remove barriers to their study. They also-co-ordinate about 40 student support staff who can work with students in varying roles, the most common being note taking. The service also funds part time staff. They include, a Disability Awareness (DA) officer who works on projects and provides DA training to staff, a Learning Developer based in the Teaching and Learning Development Unit who coordinates learning assistance, and a Computer Support consultant who trains students to use assistive technology and works on projects such as setting up the Disability Support Service database.

The University of Waikato's centrally funded Te Wahanga Whakapakari Ako, Teaching and Learning Development Unit (TLDU) caters for the learning and teaching development of both staff and students on campus. The decision to locate student learning development with teaching development was the preferred option indicated by a survey of academic staff and the views of people who were contributing to learning assistance at that time. The belief is that this arrangement overtly acknowledges the teaching learning nexus. The Unit has been in existence for ten years and now operates with a teaching staff of nine all of who work to varying degrees with staff and students. The Unit is committed to enabling students and staff at the University of Waikato to achieve the goal of high quality in their learning and teaching. The work of the TLDU is underpinned by inclusive practices with its recognition that staff, students and the University as an institution are all learning. This philosophy also recognises that one primary aim of the University is to provide the opportunities for all to achieve to their full potential.

In recent years the number and range of students who sought learning assistance from the TLDU and the DSS has increased exponentially. It became apparent that time and resources of the Lecturers and Tutors in the TLDU were not sufficient to work with the growing number of students on campus with individual learning differences who would benefit from ongoing one-to-one learning development.

At the beginning of 1999, one of the Learning Developers at the TLDU was funded for eight hours per week by the DSS to develop ways of delivering and increasing the learning assistance specifically for students with individual learning differences. Options of locating this assistance within the DSS or setting up a specialist Unit were not chosen. While acknowledging that these may have had merits in resource and monitoring terms, there was the problem that this form of assistance would have been separated from the existing learning assistance offered to students. There was the potential for presenting a *deficit or remedial model of learning*. Deficit models reinforce students' negative perceptions of themselves and thus discourage them from seeking the assistance they require. Basing the programme in the academic context of the TLDU represents an inclusive approach to learning assistance and therefore a positive approach to work with all that the student represents.

About two thirds of the way through the year, it was evident that the one-on-one contact work with students was making it difficult for the Learning Developer to fulfil the other areas in her brief. These areas included building networks, researching, and planning new initiatives. Population demographics were also indicating an increase in the demand for the one-on-one on-going learning development.

Learning Assistants (LAs) were introduced into the service as a result of:

- the recognition of the increased workload of the Learning Developer
- the need to increase the one-on-one assistance for students with individual differences
- the need to increase the number of people working in the area

The last aim was keeping within the philosophy of inclusion as it had become evident to the TLDU and the DSS, in particular, the Learning Developer (Andrea) and one of the Student Advisers (Simone) that learning development could be enabled and strengthened by students having an opportunity to work with a Learning Assistant of their choice. Factors that need to be taken into consideration include: culture and ethnicity; gender; personality; and age. Providing a range of LAs who could meet this aim has been one of the exciting challenges in implementing the programme.

Introduction of the psychologist

In mid 1998, the Examinations and Assessment Office requested that students with individual learning differences produce a list of formal recommendations made by a registered Psychologist working in education. An external agency was contracted to provide these assessments and to ensure consistent assessments and recommendations by a reading and writing specialist. The contract between the University and the Psychologist was initially funded through the Examinations Office and in 2000 the DSS took this over.

Initially the role of the Psychologist was to assess student requirements for accessible/alternative arrangements that would assist them in an examination environment. To carry out this task the Psychologist used instruments of reading analysis and related strategies, spelling competency analysis, written language assessment, and scripting competency. Assessment of the students' ability to transfer and generalise perceived and actual competencies into the learning and examination context were also considered important. While the Psychologist used testing procedures, they were only tools, with analysis and interpretation being the most important fundamentals of any assessment, supported by the use of personal models in learning.

Recommendations for examination purposes included the use of reader and/or writer, additional time and the use of a separate room together with typing and computer facilities, with or without darkened screens and access to a printer to be able to proofread work in hard copy.

In working within such assessments however, the Psychologist decided that recommending accessible/alternative arrangements were in themselves only a part of the overall picture. The assessments were failing to provide students with a dimension of ownership in the understanding of themselves as well as an understanding of the tools and strategies necessary to develop their learning processes to the best or most effective possible level of independence. The Psychologist's concern led her to include in the reports, recommendations made

in a holistic manner. In other words, the recommendations took the 'whole' of the student into account in assessment and analysis as well as interpretation of their ongoing requirements.

In making her recommendations and assessments, the Psychologist now includes an analysis of:

- ◆ the nature of the individual learning differences of the student
- ◆ the presence of previous life-based and learning experiences of the student and their impact, both positive and negative upon learning success
- ◆ the differences between actual and perceived learning competencies
- ◆ labels that students have been given or have adopted in the past such as learning disordered, learning disabled, learning deficit, learning deficient, non-reader, dyslexic, maladaptive or functionally disordered and the effect that such labels have upon the students' perception of themselves as learners
- ◆ the pace and amount of learning demand for the student and the appropriateness of this demand upon the individual capabilities of the student
- ◆ current strategies already in use by students and their effectiveness in assisting them in their learning.

This approach enables the Psychologist to move to a written analysis that has as its cornerstone both the concept of, and an acceptance of, individual differences as a normal part of any individual.

In her interviews, the Psychologist discusses the nature of the individual differences both recounted by the student and interpreted in assessment. This provides an opportunity to reframe the individual differences within a narrative framework. Both the concept of individual differences and the use of a strongly narrative approach provide a basis for the students' understanding of the impact the individual differences and other external agents, such as schooling systems, had upon their capacity or ability to learn, and to apply that learning in a formal academic setting.

Too often students are ascribed labels that oppress them and can result in a loss of confidence, self esteem, and risk taking ability. A more positive approach is to create a contextual understanding of individual difference and to work on developing strategies that enhance one's learning capabilities. The emphasis within the recommendations is thus based in practical and attainable strategies, which enable the student to "boss" their individual differences around, feel in control of whom they are as well as create the possibility of a positive future and positive outcomes in study.

Many strategies take time to develop and on occasions issues surrounding task completion in semestered courses may need to be negotiated with academic staff. A high degree of reliance on books of readings and internal assessment may also pose particular difficulties for those students who may process differently. At times students may want to modify some aims and substitute

others. Some may decide that the perceived risk of adopting a strategy is too great and opt for the accessible/alternative examinations arrangements only.

The number of students who have seen the Psychologist has grown from eight in 1998 to 22 in 1999 and so far in 2000, 25.

The Process of the Learning Assistant Programme

The "Team" approach adopted by the programme brings a range of personal skills and well-integrated inclusive services together to focus on addressing the individual differences of students. It comprises close working relationships between students, the DSS Student Advisers (SA), a TLDU Learning Developer (LD), a Psychologist working in Education, Learning Assistants and other support staff on campus and outside agencies. The LA programme is funded through a Special Supplementary Grant from the Ministry of Education to the Disability Support Service. *The process* is as follows:

1. The process starts with interviews with one of the Student Advisers and the Learning Developer. The outcome can be a suggestion/recommendation that the student be referred to the Psychologist to assess what would be the most appropriate accessible test/examination arrangements and consider strategies that could assist the student with their learning development. The decision of whether to go ahead with the referral is left to the student.
2. If the student chooses to have an assessment the student adviser makes a referral to the Psychologist who contacts the student to set up an appointment and complete the assessment.
3. Copies of the report are sent to the student, the Student Adviser, the Learning Developer and a copy of the accessible examination arrangements is sent to the Examinations and Assessment Office.
4. Separate meetings are set up with Student Advisers and the Learning Developer to discuss some of the implications of the report. Factors around availability, suitability and background are taken into consideration when the student and Learning Assistant start working together.
5. From then on arrangements around appointments are made between the Learning Assistant and the student.
6. The students then make appointments (usually one hour per week but varies sometimes) to work with the Learning Assistant on developing their learning strategies.
7. Regular contact with the SA is advised so that students can discuss any questions and concerns with them, the Learning Developer or the Learning Assistant.

A formal agreement on student and staff commitment to the programme is not set up. As formal agreements may be seen as an imposition, we feel uncomfortable about setting them up with students. The idea of a formal agreement would be to set the foundation for the relationship and the student's commitment to and ownership of the process. We believe that if students

understand the reasons for developing the strategies, and what they can do to enhance their learning, this will evoke a stronger commitment to their developmental process, rather than having an imposed contract. We feel this is more respectful of students, and a better base for learning development.

Framework Underpinning the Programme

The design of the programme is constructed around developing the learning of students and promoting inclusive teaching and learning practices. It is underpinned by the process suggested by Mungavon, Allan & England (1999) of identifying problems, recommending teaching and personal strategies, and reasonable adjustments that take into account the various assistive technologies that are now available.

Two frameworks described by Mungavon et al (1999), are commonly used to describe learning problems in Australia. The first framework acknowledges learning disability and the second does not recognise the term preferring to use the term learning difficulty. It is our view, however, that a framework based on individual difference provides a way for developing a more inclusive model of learning development. This framework, as noted, acknowledges that all students bring individual differences with them to learning situations. These differences are seen as normal by the student and indeed are normal. This framework is thus respectful of the 'who' the student is and does not objectify. Such an approach is congruent with the underlying aim of the TLDU, that learning development is seen in terms of a wider brief to develop inclusive teaching and learning practices throughout the university. The programme's aims of providing an environment where everyone has the chance to realise their learning potential are underpinned by a number of assumptions.

Assumptions

- Individual differences need to be clearly identified. Here the input of the psychologist is valuable in signposting the differences and suggesting useful strategies.
- Students may need to learn new strategies, as strategies they may have adapted for themselves could be blocking their learning.
- There is a need for the student to develop an ability/confidence to step outside their comfort zone. Many students have become averse to taking risks or developed second order anxiety processes¹ along the way.
- Progress may vary between students, but there is an expectation that students' be committed to their plan developed in their discussion with the psychologist and their work with the learning assistant.

¹ second order anxiety describes being anxious about being anxious

- Expectations of what can be achieved may be unrealistic and therefore there is need for constant renegotiation of the students' expectations, and for evaluating these expectations in the context of their lives.
- Students will make some non-negotiable commitments to developing certain aspects of their learning – for example - the need to read more to develop fluency with text and familiarise themselves with dictionaries, vocabulary, language, and the need for auditory training in some cases to avoid focusing intensely upon print at a visual level when reading. Some may need to gain confidence in speaking in tutorials and presentations and it may be suggested they become involved with outside organisations such as Toastmasters.
- A clear assumption is made that students have an intention to learn and develop their learning process.
- Students also need to be prepared to take an active role in putting effort into developing their learning processes. Strategy effectiveness is essential in this area, as is ownership of the strategies.
- Students have the cognitive capacity and willingness to succeed but some may need to pace their learning.
- By demonstrating an inclusive way of working this programme would assist with policy development in academic areas as they relate to inclusive learning and teaching practices.
- The programme is/will involve a wide range of students and thus will address population demographics.
- Assisting students to be effective learners is best done at an individual level (Mitchell, 1994, Channock, 1999).
- There is a need to influence teachers to adopt more inclusive teaching practices.

To provide an insight into how the team works together to provide inclusive learning development further key players in the team will now be profiled.

Students

Students who use the programme come with a wide range of individual differences. Some students experience learning issues caused by factors such as: ADD and ADHD; short auditory memory or limited auditory training; being strongly visual or auditory learners; difficulties in chaining auditory and visual aspects of print; second order anxiety with panic response and a psychological blocking response, limited spelling strategies which block competencies developing in written language or cause restriction in language and vocabulary usage; low confidence; low self esteem; existence of mental health issues; time factors involved in processing language and perceptual differences. Some students may have come to university aware of these differences, and others find they are not 'coping' with their studies, and think there may be blocks to their learning. They want to find out what these are and what they can do to work with

individual difference. Students are self-referred or advised by academic staff to approach the TLDU or the DSS.

Many students come with negative previous learning experiences. The majority are not keen readers and are often wary of printed material (to use a narrative metaphor - print and spelling boss them around). Some live with the effects of brain injury or have mental health issues that manifest in lowered concentration and energy levels and disordered thought processes.

These students come to university to explore interests, broaden knowledge and understanding, break new ground (many are first generation students) and because they perceive the university offers them status and enhanced job opportunities. They are essentially on a journey of discovery to find out who they are and who they can become. They bring with them the capacity or the hope to benefit from and accomplish university level work. This can often involve long hours and laborious re-reading and re-drafting as the result of having, for example, to use assistive technology (Voice Activated Software, Text Scanners and Dictaphones) or because they need to decode, read for meaning and then check for confirmation (repeated reading strategies) to access meaning of text.

In addition they bring a strong will and determination to achieve their own personal goals. Learning, understanding and achievement are often valued because of the struggle involved in pursuing tertiary study. Being at university can open up new ways of perceiving themselves, which has positive effects within their daily lives. They learn to be positive about their abilities and achievements whereas in the past they may have focused on what they cannot do.

Some students also bring with them, however, adaptive behaviours and strategies that they have used to 'cope' with individual difference that have proved effective in other settings but now hinder their academic development in a university setting. Many have intuitively adopted a set learning style. They may have highly attuned aural ability and avoid reading. Their spelling may be solely based on visual strategies and memorising. Students are encouraged to accept the challenge of learning further strategy based adaptive behaviours to effectively manage their difference and the challenges these pose to their learning. Management of individual differences is the key to 'bossing them around' so that the student becomes confident in walking with their differences.

Learning Assistants

Learning Assistants (LAs) work with the recommendations suggested by the psychologist. The student and the LA negotiate the process and strategies that can be blended into the day-to-day work of the student. Strategies can include:

mind-mapping; working with test preparation and test taking; developing proofreading skills; ways for working with spelling and grammar checkers, time management; and course organisation. LAs can model proofreading processes using the student's own draft work. It is also helpful if the LA explains why what has been written is not correct and suggests some strategies for recognising and correcting errors. Other tasks can include: assisting the students to come up with their own ideas and judgements; to generate questions and focus on material; to monitor their time management; to set appropriate paced tasks; and to establish helpful and effective study patterns. Again all of the strategies are discussed, defined and ultimately owned by the student.

Key factors

Using **humour** and a **non-judgemental** approach to students are essential elements in the work. Both parties have to accept when a goal is not able to be met and at the same time encourage each other to keep on going. The use of **affirmative language** is crucial when working with a student. Language is also one means through which we define ourselves and it is important that both the student and LA feel comfortable with terminology used. An example of this occurred when a student and the Learning Developer were working through his enrolment form for the 2001 academic year and he came to the box that read, 'Do you live with the long term effects of injury, illness or disability?' The student refused to tick the box and said "I have an individual difference in my approach to my learning, I don't have a disability". He added that this different way of perceiving himself has made him feel more confident in accepting his individuality. Another student, employed to assist in disability awareness training sessions on campus, said that through being a trainer:

'I realised that I don't have a disability now. I'm just learning. Just because I have a different pace, that used to piss everybody off at school. Because I was perceived as being slower, I was, therefore, wrong. When I got to Uni, I'm just different not wrong. I really believe that if I had got backup when it first showed up at school I wouldn't be here now I wouldn't be needing to do all this catch up now and training and re-training my brain to think differently now. I looked at my reading age at high school reading age was 18 yr old at 13 and writing age was 8 at 13 yrs. So I needed to drop one and pull up the other. I really feel now that I am not wrong I am just different'.

Keeping **motivation** alive can be a key issue for many students; therefore, this may be something that the LA and student address on a regular basis. There may be various factors that keep motivation levels low and create barriers to learning development. Through discussion, further strategies can be identified that could be useful. Other university services such as counsellors and financial advisers could be identified as enabling students to overcome such barriers.

Workload can be another barrier to effective learning. Many students have developed very creative ways of approaching their study. One student compares her workload to eating a Taco:

'I break my work down into do-able or chomp-able bits like eating a Taco... I want to get the most bites!

Metaphors such as this are a way in which students show understanding and owning of their strategy.

The work of the LAs is thus focussed on addressing individual differences and how students can 'walk' with these in their academic work. The importance of their role for the success of the programme is reflected in the processes related to the recruitment, training, supervision and professional development of the LAs.

Recruitment

The recruitment of the LAs takes into account that the work is multifaceted and requires commitment. The interaction between the LA and student is collaborative and interdependent - a partnership. Each needs to understand their roles and responsibilities. There must be trust and honesty in the process of working together. Of primary importance are the personal qualities involved that help to weave a fabric of mutual respect. Clear boundaries play an important part, and this aspect of the LA's work is addressed in the training.

In recruiting the LAs we have found a degree of familiarity with individual learning differences to be useful. Students who have been reader/writer/note-takers who wish to extend their assistance beyond support into developmental areas are a great source. We have, however, discovered that people who have never encountered barriers to learning may not necessarily be the best assistants. This could be due to a lack of reflection on their study process and a lack of awareness of the challenges facing others. Of importance are sound interpersonal communication skills, creativity and enthusiasm. The LAs need to be reliable, organised, patient, good listeners, and have an open mind.

The following comments from two students reveal that students do appreciate having a team of LAs available and that being able to work closely with one person is important:

'So it depends on the individuality of the person so when the TLDU look at a person they need to take the individuality into consideration and hook people up with people that would match them.'

'There needs to be consistency with who you work with so that you build rapport between two people so that your needs and what they supply you has been built up because you are always working together. Need to

build safety, having consistency and trust. If I chop and change with someone then I don't really want to do it.'

These qualities also set the scene for good working practices and encourage and maintain the level of ongoing development the student chooses to set. This has to be dealt with empathetically by the LA and realistic objectives negotiated. Students may have to reassess the number of papers they are doing which also have financial and time implications. The LAs need to work through some difficult issues and decisions with students at times but must realise that ultimately each student owns her/his choices.

Training

So far this year there have been two formalised training sessions. The first training session of three hours covered: referral processes; staff codes of conduct; the role; record keeping; harassment and boundary issues; ethics; administrative information; and a meet and greet with TLDU and DSS staff. The second session covered ways of working with students. In this session other Learning Developers presented examples of processes that have worked well and reinforced the important role flexibility has in the (initial and ongoing) development of strategies to suit the student.

Within the second session the team watched the experiential video, Frustration Anxiety and Tension (FAT City), by Richard Lavoie. This video draws attention to the learning problems created by perceptual and cognitive differences, giving viewers an insight into the reality of 'walking' with individual learning differences. The need for further training has been identified especially in relation to assistive technology, and enhancing LAs knowledge of available resources.

Supervision

Face-to-face contact with the LD is essential when the LA is to work with a new student. The supervision process is integral to the ongoing development of the LA and also to the programme. The LD facilitates the supervision process and it has been recognised that a formal time each month (as well the drop in visits), needs to be set aside so that each can prepare for the session and bring along any issues and concerns. This reflects the importance placed upon the role, the synergy that comes from sharing ideas and the need for the staff to feel valued and supported. In addition to this formal process the LAs are welcome to contact the LD at any point to discuss issues, ideas and concerns.

The Programme in Action

An integral part of the inclusive philosophy is that LAs are not constrained by any single paradigm for working with students. Approaches used with students are eclectic and have regard to the uniqueness of each student. There is recognition

that there is no 'one best way' to learn and that a strategy that assists one student may not necessarily assist another, although we need to share strategies. Each LA brings their own background, experience and ideas and this means that the programme offers students a variety of working styles and philosophies. This context impacts upon the LAs practice in which differing philosophical bases (there is evidence of scaffolding, narrative and humanist approaches) are used. Student feedback shows that they value this approach, in that it allows LAs to vary the use of specific tools according to the situation.

Some students already have a preferred learning style and the LAs can also assist students to recognise the benefits of using other styles and alternative learning strategies. Discussing alternative options with students' means that they have the choice to extend themselves, as it is often rigidity that stalls progress. Some students use assistive technology as a tool for their learning. LAs need to be aware of the assistive tools students are utilising (its advantages and limitations) so that they have more of an understanding of student process in completing assignments. It means they can initiate discussion to check in on how effective the tools are in facilitating their learning.

The types of assistive technology available to students at The University of Waikato are: Voice Activated Software, KeyRep, FM Hearing Systems, Screen Readers, Dictaphones, and CCTV. Often more basic 'low tech' and auxiliary aids are over-looked by people, but they have proven extremely useful. These include: highlighters; colour coding of work; word processing on computers with grammar and spell-check options such as office 2000; mind mapping programmes; advanced copies of notes on line and in hard copy; and colour overlays for text.

When assistive technology breaks down, other avenues within the University community can be utilised for students to process and complete their work. University Secretarial Services has proved an invaluable service where students can take dictated assignments and hand-written essays to be processed. It is often a same day service so they have time to check their work and hand it back for re-editing if necessary. Students also work with the student support staff from the Disability Support Service, in areas such as reading, dictation and library work, and the student advisers will support students in making requests for extensions, seeking alternative arrangements and so on.

Case Studies

The following case studies illustrate the programme in action. These cases give an idea of the range of approaches used in the interaction between LA and student. These students come from different backgrounds, cultures and age groups. Names have been changed to protect their privacy.

Lee: Arts and Social Sciences

Lee was one of the first students to work with a LA. She lives with ADD and has a strongly visual learning style and short auditory memory. She goes into auditory processing overload very quickly. She was enrolled in one English literature paper, as she needed to pace her learning. She was using a voice-activated tape recorder to access continuity of information as distractibility often took over in lectures. Repeated reading techniques worked well for her when going through her articles. The Psychologist recommended mind mapping as a means to organising her thoughts and structuring her ideas for essays, tests and exams. She developed her own system of mindmapping using her child's paint box and found this really useful, as her previous strategy for keeping information was loose-leaf paper jammed into a folder. She converted all notes into mind maps. The use of colour was an important feature in her world because it assisted her in the process of chunking and structuring information. She found spelling polysyllabic words challenging. The use of a spelling strategy devised by the Psychologist, and reinforced by the LA and the student, means that she was approaching 4-5 syllable words with more confidence and successful outcomes.

She uses additional time in tests and examinations set at 10 minutes per hour with access to a separate room. It was not recommended that she work with a reader/writer in tests and examinations as she is able to achieve pacing and organisational behaviours using identified strategies.

Emma: School of Management

This woman describes herself as 'stubborn' and this keeps her motivated. She is extremely creative and intelligent and is a high risk-taker. Like the previous student she has a dominant visual mode learning style, relying on visual techniques for spelling and has some blocks to written text. The LD has worked with her on her ability to stay on 'track' by planning essays. She tried the mode of using voice-activated software but found it frustrating to work with. It might now be time to revisit the software, however, she still values the discussion process she has with her LD around her ideas and finding the main thread for the essay.

'Planning is my biggest issue as I basically shotgun the page and I need to develop one conscious theme running through my essay. Andrea [LD] helps me find my main theme and then I work with little off branches that work back into my main theme.'

She needs to get ideas down fast but then work with them systematically to refine them. The student is now taking responsibility for organising her workload so that she can come to see her LA in plenty of time before assignments are due. She also needs to have really thought her ideas through before she meets with the LA. The following is an example of a spelling strategy that works for her. It evolved serendipitously in the weekly sessions:

'Something that I don't get or know is wrong she helps me sound it out and speak the word and also explains the history of the word as that helps me concrete it into something not so abstract. This helps words become complete tangible concepts as compared to random formation of letters and then they get a sound as well that she reads through with me as that is a problem that I find cos I can't pronounce words properly'.

This student knows that what works best for her understanding of course material is to read the text three times, but she finds with semesterisation that she has to ration her time spent on each article. She has developed the strategy of reading every week rather than being scared of print. She also makes sure that she has completed her readings before she goes to class so that she has a better understanding of what is being discussed in the lectures. She describes her strategy as follows:

'What I do is skip steps with reading. I read things and conceptualise them I make up stories and I become the star. For example when I read HRM articles I become the manager. This is because of all the years of drama I have been doing and I find it really hard then to put sound to words and easy to make pictures in my head. Once in an exam I made the light bulb into a character and it talked to me about the equations I was needing to remember'.

She works with a writer for all tests and examinations, a separate room and additional time (to enable her to independently access both the visual aspects of text as well as text information) is set at thirty minutes per hour (50% level).

Kapai: School of Maori and Pacific Development

Working with a Maaori bilingual LD has allowed this mature Māori student to communicate via the medium of his first language (Māori). In doing this, Kapai has demonstrated his ability to express very clearly and confidently, his thoughts and ideas on specific aspects he is familiar with on any given topic. His writer, who has some knowledge of the Maaori language, is able to transcribe his oral interpretations appropriately.

This development has initiated the additional use of audio equipment for the purpose of enabling Kapai to continue with using his oral skills by recording his understanding of lectures and written text in the absence of his writer. This is a strategy that enables him to research and collect data relevant to the topic he is studying, for whatever purpose, and without too many constraints of monolingualism restricting his preferred use of his ancestral language. This strategy, among others, has also been beneficial in assisting Kapai who has limited short-term memory retention.

The LD has also worked with Kapai on developing suitable learning strategies to assist him with the organisation of the data he has collected. He experiences great difficulty understanding the conventions of writing. Coming from a very strong cultural background, Kapai has an in-depth knowledge and sound understanding of Māori customary concepts and practices. This has prompted the process of relating selected Māori concepts and practices to the conventions of writing which has had a significant impact on his learning development.

For example, the learning developer encourages Kapai to talk about his understanding of specific Māori concepts and employs his understanding to explain an aspect of writing and its purpose. *Whakawhanaungatanga* is the act of establishing relationships. The purpose of *whakawhanaungatanga* is to achieve unity among people. Kapai's understanding of this concept and its purpose, clarified for him the purpose of linking together all his main ideas and supporting discussion into a cohesive whole.

The student works with a reader/writer in all tests and examinations, the provision of a separate room and additional time is set at 15 minutes per hour.

Alex: Science and Technology

This student has recently entered the LA Programme and wants to accept and manage his individual differences in a positive way.

'I had the feeling of oh wow can't believe it I have these differences and I should just really get on to it and work with strategies. I talked to my mum and she said no that isn't what you've got and I said yes it is. It's the second time I have been to someone and I know I believe them. I never knew how to say to lecturers what went on for me and Keiran [Psychologist] said just say you have individual differences in learning. I dwelled on it for a few days and then I thought well I should just get on with it because I've lived with it for most of my life anyway. At high school they were quick to judge me but not help me.'

He has short auditory memory and information becomes visually crowded to him. Living with the effects of ADD means that he has high distractibility in lectures and difficulty keeping to the task when studying and processing ideas. He describes himself as being a classroom learning avoider at school, much preferring the playground and sport. He has developed strong second-degree anxiety about subjects that he wants to succeed in, but is much more relaxed around others that he is not concerned about. He is amazed at how well he is doing in Chemistry, one of the subjects he wasn't really interested in, and how challenging he is finding Biology which is his intended major (an interesting display of the effects anxiety can have on information retention).

The student is not yet ready to adopt some strategies such as speaking his assignment onto a Dictaphone so that he can hear how sentence formation reads, as he does not like hearing the sound of his own voice. He does find the time constraints of semesterisation difficult to work with which is a common concern of many students.

' Semesterisation makes thing so hard for me because I don't get time to really get to read and re-read and really understand the text and I need lots of thinking time to understand stuff'.

Work so far with the LA has focused on planning his workload and developing strategies around spelling, and organising material for essays and other written tasks.

This student works with a reader/writer for all tests and examinations, the provision of a separate room and additional time is set at 20 minutes per hour.

Auaha: Education

This student speaks Samoan as his first language and had a fragmented schooling experience. By reading his daughter's schoolbooks with her he taught himself to read at the age of 19. He is a strong visual learner. Success to this student means getting things right and everything else may represent failure. He is, however, a strong risk-taker. The LA works with him around expressing ideas clearly and using words in context. He receives a wide range of marks according to the type of task. Academic writing poses the greatest challenge. Recently has begun to write tests himself and go through spelling and grammar checking with his reader/writer before it is handed in. The use of Voice Activated Software (VAS) enables him to remain independent along side developing learning strategies with the LA. Together they are currently working on the following strategies: adapting the conventions of writing to a context he is familiar with, that is his strong Samoan background; using a reading journal to keep track of his reading and to encourage him to write a summary of his understanding of what he has read (no more than 100 words); and developing strategies to assist with the difficulty he experiences with grammar.

The student works with a reader/writer in tests and examinations, the provision of a separate room and additional time is set at 20 minutes per hour.

The following are brief examples focusing more on the input of assistive technology.

Eva: Arts and Social Sciences

This student found writing assignments a frustrating and laborious task. Her strategy was to dictate and then elaborate her ideas to her writer. Together they went over the grammar, spell checking and general organisation of the essay. She wanted more independence within this process. An assessor from AbleTech

Hamilton NZ, discussed with her, various options of assistive technology that she could work with. Through trial and error, KeyRep, a scanner and screen reader programme proved to be most suitable. Workbridge funded the assessment and equipment. The student works with a note taker in lectures and a reader/writer in test/exams with her exams being split. Work continues with a LA around strategies for developing reading skills.

Joseph: Management

This student has copies of lectures notes in advance so that he can follow the lecture without being concerned that he may not be getting all the information he requires. He is then able to jot down any additional notes he may wish to make. The student also uses a Dictaphone to tape his lectures as this repeated listening technique assists him with memory retention. He uses a personal organiser to manage his daily tasks and to keep him on track with study requirements. A Learning Assistant works with him in organising and analysing his ideas to develop a consistent theme throughout his essays. He also works with a personal tutor to develop his understanding of course content.

Aroha: Arts and Social Sciences

This student uses colour overlays to decrease the glare of black on white paper. She also uses a Dictaphone to reinforce what she hears in lectures. She makes mind maps from the lecture notes and colour codes her readings with highlighters. The student uses the spell and grammar check, and the thesaurus from Microsoft Office 2000 to assist her with word processing. Her LA has taught her how to break her text up with colour-coded highlighting and they work on blending strategies into her everyday course material.

Evaluation of the Programme so Far

Focus groups were held with LAs and students. From this process we were able to evaluate the programme from their perspective as well as our own. It is evident that the programme is working well but there are areas that require further development. In reflecting on the programme we can see that there are number of unforeseen and greater benefits that have emerged for all those involved and ultimately for the university as a whole.

- Incorporating the programme into a well established Teaching and Learning Development Unit has raised awareness of the range of students who can succeed in their potential. By fostering an inclusive focus it models best practice.
- Individual staff and team development has grown significantly. The Learning Developer, the Student Advisers and the psychologist have a highly interactive relationship each bringing with them skills and vision. Their interaction with students enables different learnings and a wealth of ideas to be more fully developed. Through this a fuller picture is painted from which

appropriate support provisions and strategies to increase student success are achieved.

- There has been an increase in networking with other academic staff working in and using the TLDU.
- Networking with the wider community is closing the gap between the external Community agencies (such as Workbridge and Able-Tech) and the University.
- The programme is the interface between implementation and policy formation. It is a mechanism through which policy can become transformed into practice and vice-versa.

Factors essential for success

- Students owning responsibility in organisation of work- load and time management is one of the key factors to student success in the programme and ongoing positive learning outcomes.
- By blending strategies, a flexible approach to the structured recommendations outlined by the psychologist encourages more input from student and staff alike. Contextualising the work and incorporating the life skills and knowledge from both parties is a strong framework for meaningful learning. The knowledge from both parties is valued and this is the basis for developing confidence and the enthusiasm to take risks.
- A diverse range of LAs is pivotal to the success of the programme.

Further Development of the Programme

The development of the programme requires quantitative and qualitative feedback from staff and students related to the aims of the programme. The following points are all essential elements in the ongoing development of the programme:

Liaison

- Frequent liaison and input using a team approach especially between the learning developer, student advisers and psychologist.
- Other support services may be needed to complement the work being done by the LA's such as counselling and additional tutorial support working on content.

Networks

- Encourage and maintain links in the university with other support systems (such as Academic Services Division, Faculties, Student Services Division) – this can have some good effects in the areas of policy development.

LA Staff Development

- Professional training for staff involved in the process.

- Maintain regular one-on-one supervisory meetings with LAs to discuss assessments and development.
- Implement discussion/focus group sessions with all LAs present every 4-6 weeks.
- Co-ordinate sessions covering specific strategies with time frames attached to further develop learning assistant skill. Focused sessions could include: meeting with the psychologist to explain language and how strategies can be interpreted; spelling; mind mapping; reading; assistive technology; blending process with structure...
- Systemic training of all staff in the concept and meaning of individual differences and the implications these have for the student, and for staff teaching practices.
- Continue to encourage all staff to attend inclusive learning environment training sessions.

Building and maintaining a Team

- Opportunity to keep on increasing the pool of people from diverse backgrounds who can work in this area, enables a better-tailored fit of staff and student.
- Regular meetings with the wider team in the Disability Support Service/Student Services Division to discuss issues related to examinations, career and academic advice, counselling, medical, and financial assistance.

Student input

- Encourage further student focus groups to establish students' own network formation and opportunities to share developmental process.
- Encourage focus groups between LDs, LAs and students to highlight student issues and concerns about learning on campus
- Encourage students to start using a book to keep all useful information in one place and to mark their own progress in strategies they are learning with their learning assistant and developing on their own.
- Students could form own network as the focus group showed the usefulness of getting together for encouraging each other.

Administration

- Allow LAs preparation time and access to course material they may require (e.g. when developing reading strategies, it is more productive and less stressful reading the article first, good modelling of reading and re-reading to understand article).
- Ongoing monitoring of learning outcomes by LA's—record keeping of appointments, grades, progress in assignments for evidence of how the programmes aims are being met, that is, evidence of increased risk – taking, interest in adopting new ways of working and improved grades.

- As already noted, setting up a formal agreement does not fit well with the ideology of the programme. While wanting to avoid formal 'learning contracts', a way of establishing 'learning commitments' is currently under consideration. In this the LA and student would look at expectations, goals and each other's role in the process of learning development, and then document the outcomes of this discussion as the first entry in a learning diary. We believe this would perhaps enable greater joint ownership of the process. The Team is still discussing this idea.

Research

- Start investigating more assistive technology to purchase for student use.
- Keeping up with current reading and research as it is easy to get tied up with the 'doing' and becomes more difficult to get time for the reflecting and thinking that is essential.

Development of training resources

- Make on going development packs filled with strategies and training resources.

Conclusion

It is clear that the programme has already achieved much of what it is set out to do. It is evident students develop confidence and a new way of perceiving themselves as successful students through the concept of individual differences. They note they are opening up their life opportunities by their participation in the programme and their changed self-perceptions. The programme has also raised awareness of the many barriers and issues that surround such assistance. There are also some obvious benefits that go beyond initial expectations such as, the role the programme plays as an interface between policy and grounded practice. In writing this paper for Pathways 5, the evaluation and reflection has been valuable for the ongoing development of the programme and the professional development of the staff involved. We finish with a quote from one of the students which they feel sums up the programme:

'It's an integrated network of people in place to provide a stepladder over barriers with writing, reading and learning. It's collective support rather than a whole lot of individuals. They don't see me as a problem and try and step over me... they help me find ways that let me in the back door when often the front door is blocked with too much stuff'.

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